

REMARKS

Claims 1-5 and 22-25 are pending. Claims 6-21 have been cancelled without prejudice or disclaimer as to Applicants right to pursue the subject matter of these claims in a continuing application. Reconsideration and allowance of the present application based on the following remarks are respectfully requested.

Claim Rejections Under 35 U.S.C. § 102

A. Claims 1-5, 22, 23, and 25 were rejected under 35 U.S.C. § 102(b) over Kawahashi et al. (EP 0 881 538). Applicants respectfully traverse this rejection.

Claim 1 recites, in part, a method of handling a reflective mask that includes holding the mask while handling the mask such that the mask is self-aligning in a horizontal direction. In contrast, Kawahashi discloses a mask holding frame 1 and a base 2. The mask holding frame 1 is connected to the base 2 with screws 4 on three of the four corners of the mask holding frame 1. The fourth corner of the mask holding frame 1 is provided with a compression spring 5. Kawahashi further discloses that, by only screwing three corners of the mask holding frame 1 and providing a spring 5 on the fourth corner distortion of the mask holding frame 1 can be reduced (Column 5, lines 52-58 and Column 6, lines 1-6 and 30-40). Kawahashi does not teach a mask that is self-aligning since the only way to align the mask holding frame in Kawahashi is to adjust the screw down force on the screws 4 and the alignment that is achieved is in the vertical, not horizontal, direction. Accordingly, Kawahashi fails to teach or suggest a method of handling a reflective mask that includes holding the mask while handling the mask such that the mask is self-aligning in a horizontal direction, as recited in claim 1.

Claims 22 and 23 are believed allowable for at least the same reasons presented above with respect to claim 1 since claims 22 and 23 each recite that the mask is self-aligning in a horizontal direction. As discussed above, Kawahashi fails to teach such a feature since the only way to align the mask holding frame in Kawahashi is to adjust the screw down force on the screws 4 (not self-aligning) and the alignment that is achieved is in the vertical, not horizontal, direction.

Claims 2-5 and 25 are believed allowable for at least the same reasons presented above with respect to claim 1 and 23 by virtue of their dependence upon claims 1 and 23. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection of claims 1-5, 22, 23, and 25.

B. Claims 1-5 and 22-25 were rejected under 35 U.S.C. § 102(b) over Chiba et al. (EP 0 789 280). Applicants respectfully traverse this rejection.

Claims 1, 22, and 23 are believed allowable for at least the same reasons presented above with respect to the rejection under Kawahashi. Specifically, Chiba discloses balls 21a, b, and c and clamps 11a, b, and c that act together to hold the mask E in the base 10 and holding frame 20 (column 3, lines 25-35). This structure does not allow a mask to be self-aligning in a horizontal direction. Additionally, this arrangement relies on the contact forces between the mask E and the balls and clamps to hold the mask E and it is not a kinematically-determined holding. Although, Chiba discloses that the disclosed arrangement eliminates the need for a magnet or vacuum chuck, there is no disclosure as to how a magnet or vacuum would have been utilized.

Accordingly, Chiba fails to teach or suggest a method of handling a reflective mask that includes holding the mask while handling the mask such that the mask is self-aligning in a horizontal direction, as recited in claims 1, 22 and 23.

Claims 2-5, 24, and 25 are believed allowable for at least the same reasons presented above with respect to claim 1 and 23 by virtue of their dependence upon claims 1 and 23. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection of claims 1-5 and 22-25.

C. Claims 1-5 and 22-25 were rejected under 35 U.S.C. § 102(b) over Korenaga et al. (U.S. Patent No. 6,172,738). Applicants respectfully traverse this rejection.

Claims 1, 22, and 23 are believed allowable for at least the same reasons presented above with respect to the rejections under Kawahashi and Chiba. Korenaga discloses that bellows 13 are welded to the stage 3 at one end can connected to the reticle stage R1 by sealing member 14 at the other end. The air in the bellows 13 is evacuated and a vacuum attraction force caused the reticle stage R1 to be attracted to the stage 3 (column 4, line 60 – column 5, 11). This configuration is not self-aligning in a horizontal direction. Further, the configuration does not use protrusions and recesses to hold a mask and the vacuum force is a contact force.

Accordingly, Korenaga fails to teach or suggest a method of handling a reflective mask that includes holding the mask while handling the mask such that the mask is self-aligning in a horizontal direction, as recited in claims 1, 22, and 23.

Claims 2-5, 24, and 25 are believed allowable for at least the same reasons presented above with respect to claim 1 and 23 by virtue of their dependence upon claims 1 and 23. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection of claims 1-5 and 22-25.

Conclusion

In view of the foregoing, the claims are believed to be in form for allowance, and such action is hereby solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.


All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Please charge any fees associated with the submission of this paper to Deposit Account Number 03-3975 under Order No. 081468/0290724. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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